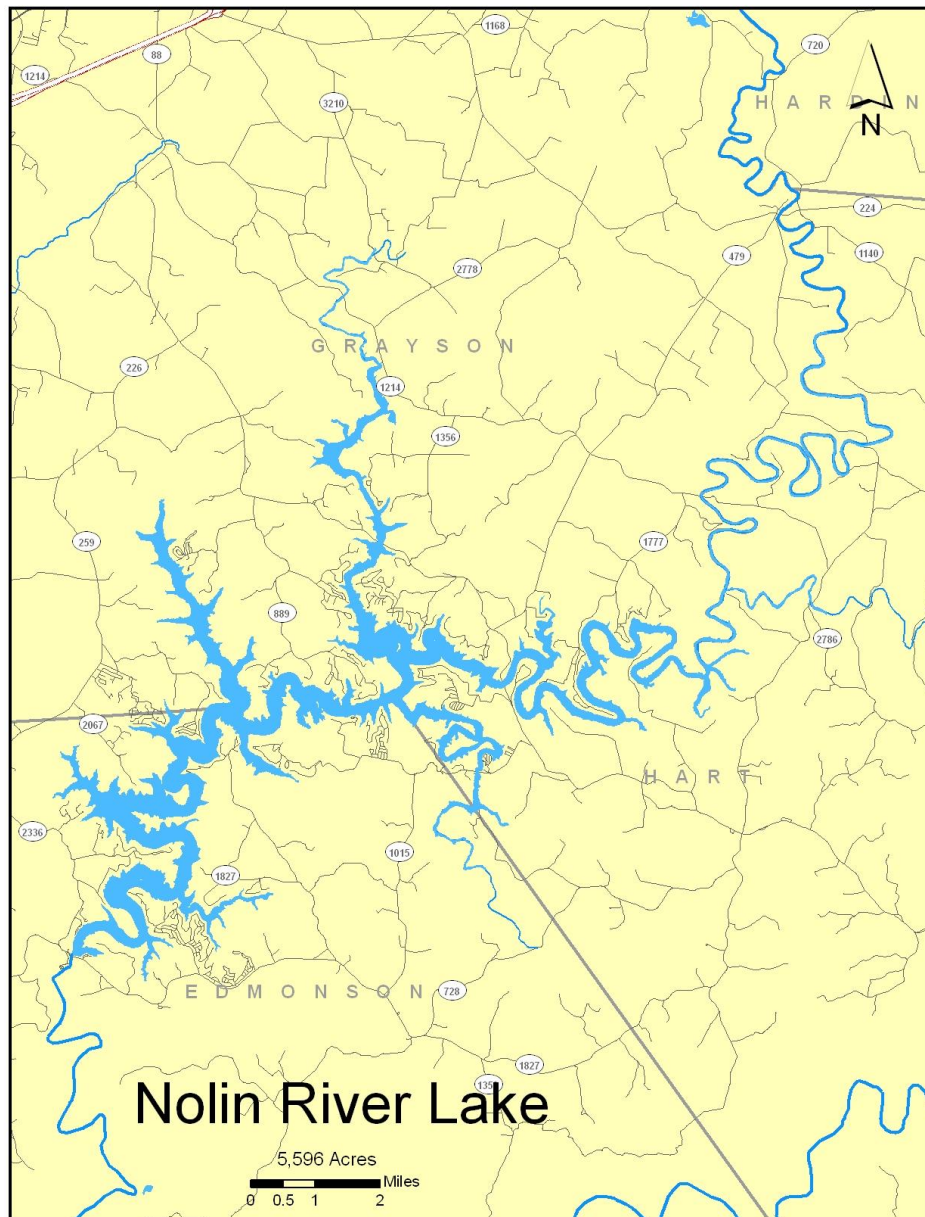


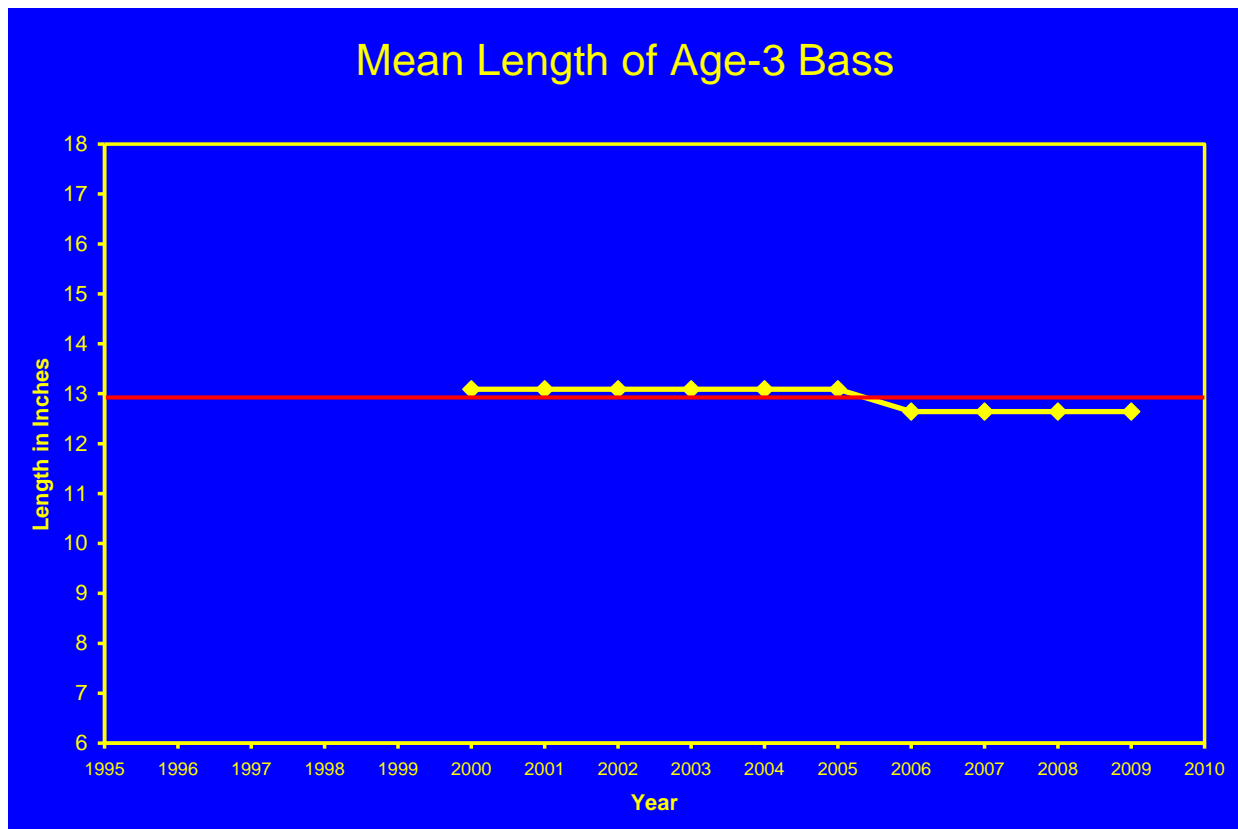
## Nolin River Lake Bass Assessment 2010

Nolin River Lake is a 5,600 acre multipurpose reservoir on Nolin River. This lake, located in Edmonson, Grayson and Hart counties has 9 boat ramps and 3 marinas and is a popular fishing destination for largemouth bass, white bass, crappie, walleye, and catfish. The following graphs show trends and rankings for each of the five population parameters used in the largemouth bass assessment. Please see “Understanding The Largemouth Bass Assessment” article for an explanation of how the assessment works.



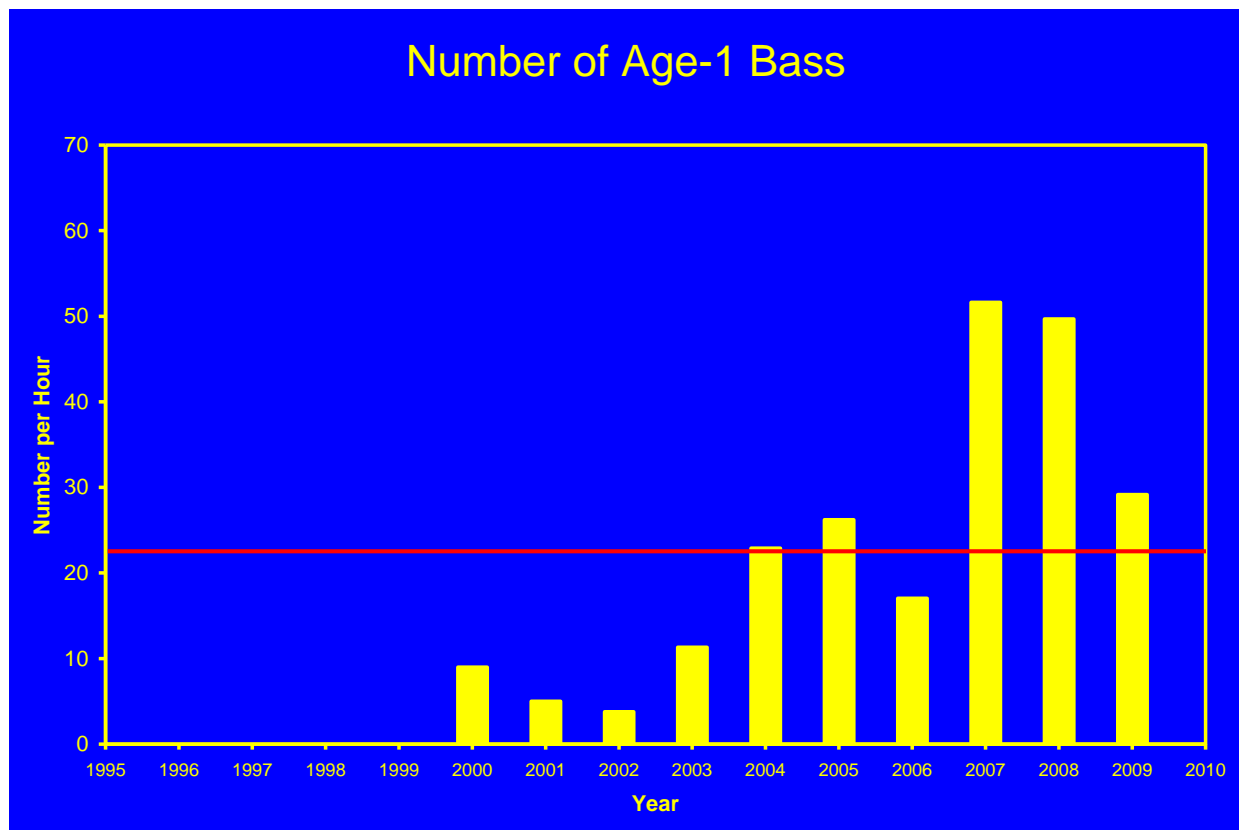
## Parameter 1 – Length at age-3 (growth rate)

At Nolin River Lake, the length of a 3 year old largemouth bass has averaged 12.9 inches since 1997 (represented by the red line). This population parameter is important for management purposes because it tells how well fish are growing and is an average of the total lengths of all three year old bass collected. When compared to other lakes of similar size, this is considered “Very Good” growth for largemouth bass. Growth rates are generally related to factors such as population density, food resource availability, and weather.



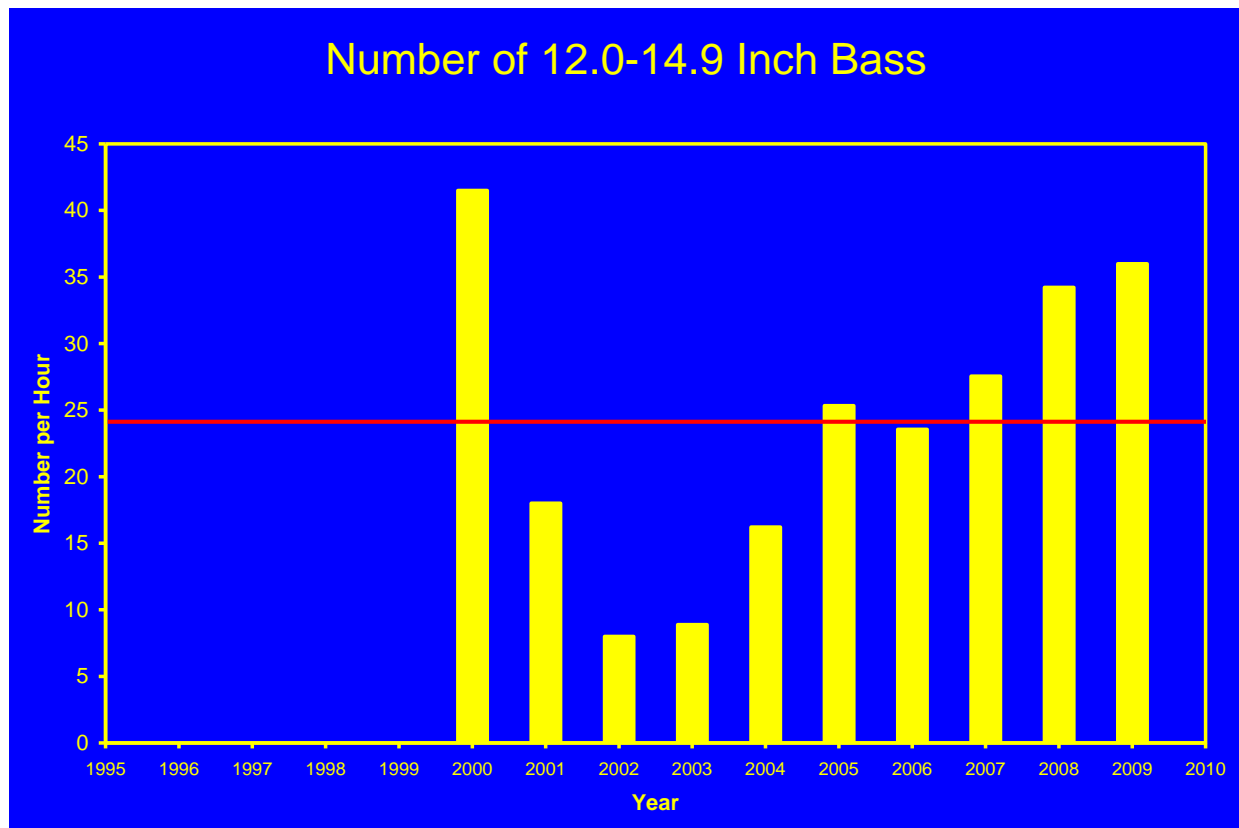
## Parameter 2 – Numbers of age-1 bass (how good the spawn was)

KDFWR calculates the electrofishing catch rate of 1 year old largemouth bass to determine the success of the previous year's spawn. This is an important parameter because the number of age-1 bass produced is used as a predictor for how good the fishing will be in years to come. At Nolin River Lake, age-1 largemouth bass catch rates have averaged just over 22.5 fish per hour of electrofishing and have generally increased since 2002. When compared to lakes of similar size, this is considered to be a "Fair" age-1 catch rate.



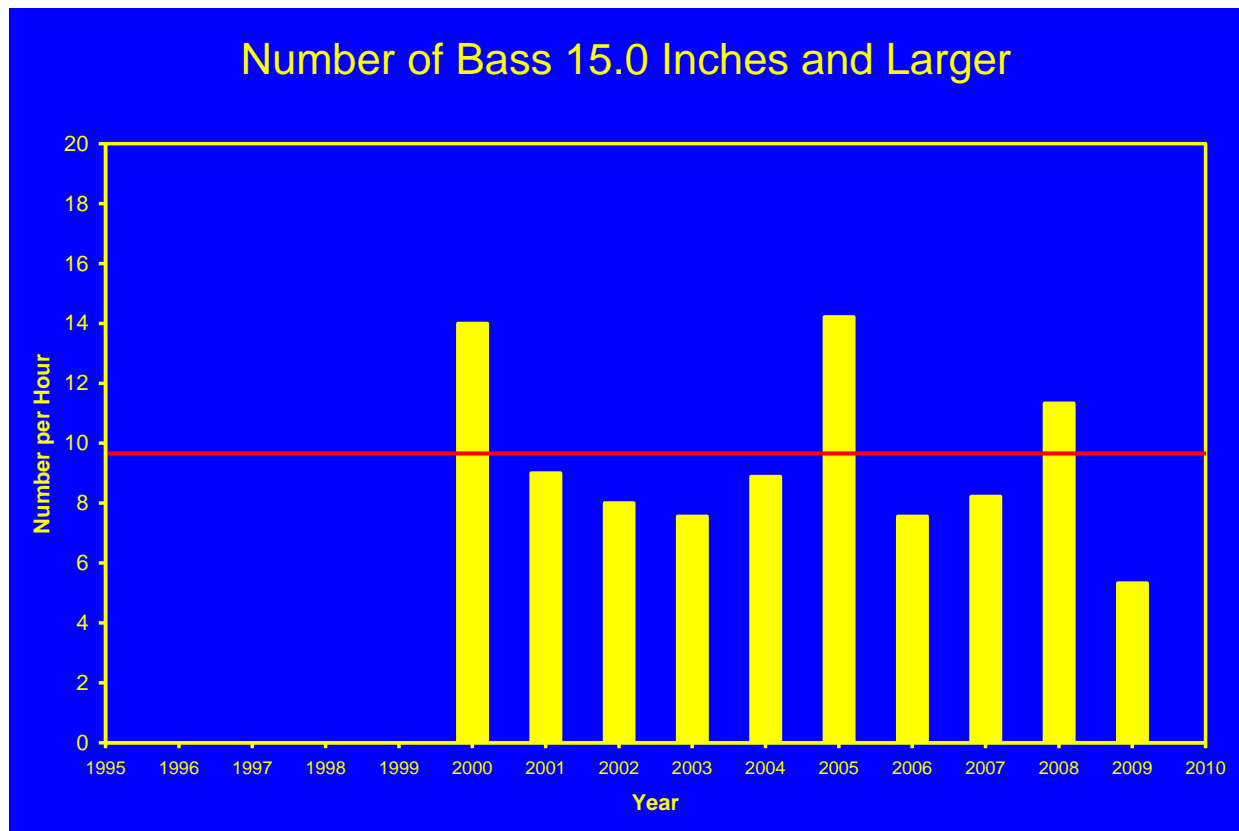
### Parameter 3 – Numbers of 12.0-14.9 inch bass

The electrofishing catch of 12.0-14.9 inch largemouth bass has averaged just under 24.00 fish/hour from 2000 to 2009, which gives Nolin River Lake a “Good” rating when compared to other similarly sized lakes. This parameter is important because these fish will soon grow to exceed the 15.0 inch legal harvestable size limit and result in increased numbers of larger bass available to anglers. The catch rate for 2009 was an increase from 2008 and continues the trend of generally increasing numbers each year since 2002. Age and growth data will be collected in 2010 to ensure that the growth rate is not slowing due to the increasing number of fish in this size range.



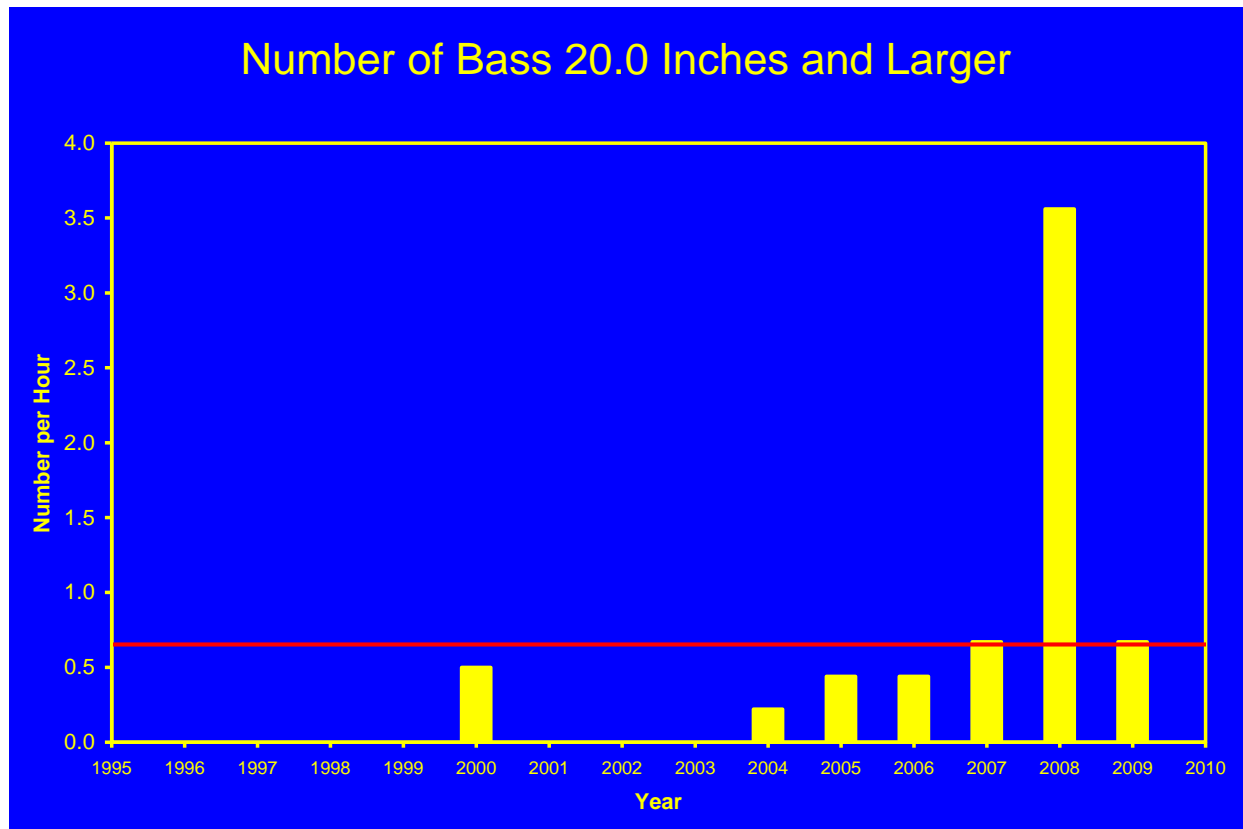
## Parameter 4 – Numbers of 15.0 inch and larger bass

The catch rate of 15.0 inch and larger largemouth bass at Nolin River Lake has averaged 9.41 fish/hour of electrofishing. These fish have grown to the legal harvestable size. The catch rate of fish in this size range has been erratic, but mostly stable throughout the years. When compared to other lakes, Nolin River Lake has never scored at the top in terms of the number of  $\geq 15.0$  inch bass. However, each lake is unique and larger fish are more difficult to sample consistently.



## Parameter 5 – Numbers of 20.0-inch and larger bass

The electrofishing catch of 20.0 inch and larger largemouth bass has averaged 0.65 fish/hour for Nolin River Lake. When compared to similarly sized lakes this catch rate is considered to be “Fair”. Fish of this size in a reservoir environment are difficult to sample consistently which likely accounts for the range in catch rates rather than any significant change in the population. 2008 was an exceptional year for capturing large fish but 2009 data fall more in line with catch rates from previous years. The general trend for this catch rate has been slowly increasing since 2004.



### Overall – Total Assessment Score (All five parameters added together)

Overall, the largemouth bass fishery at Nolin River Lake has averaged a “Good” rating (12.3) over the past 10 years as indicated by the red line. 2008 was an exceptional sampling year and reiterates the fact that data must be looked at over time and information collected in a given year cannot be used singularly to make management decisions. With the exception of the 12.0-14.9 inch bass, catch rates for all other size classes declined as did the total catch for 2009. The 12.0-14.9 inch bass have been slowly increasing in numbers the last several years. Age and growth data will be collected in 2010 to investigate this trend.

